



SAFETY DATA SHEET

DAI-EL G-EXP-021

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

DAIKIN TRADE NAME: DAI-EL G-EXP-021

FEATURE AND APPLICATION: Elastomer, heat and chemical resistant, for O-rings, seals and hose

COMPANY:
Manufacturer
Cri-Tech, Inc.
85 Winter Street
Hanover, MA 02339

Supplier
Daikin America, Inc.
20 Olympic Drive
Orangeburg, New York 10962

EMERGENCY PHONE: Chemtrec: 1-800-424-9300
Outside US/Canada: 1-703-527-3887

PRODUCT INFORMATION: 1-800-365-9570 (9 am to 5 pm Eastern Standard Time)

SECTION 2: HAZARD IDENTIFICATION

GHS CLASSIFICATION: Substance is not classified according to the Globally Harmonized System.
Substance is not classified according to the Occupational Safety and Health Administration Communication Standard 29 CFR 1910.1200.

GHS LABEL REQUIREMENTS: Symbol – None
Signal Word - None
Hazard Statement(s) – None
Precautionary Statement(s) - None

OTHER HAZARDS: Hazardous decomposition products including hydrogen fluoride and other toxic fluorinated compounds may be formed at high temperatures and during combustion. Inhalation of these compounds may result in serious lung irritation. Excessive exposure could result in delayed pulmonary edema in some cases, and on very high exposure, damage to the liver and kidneys.

SECTION 3: INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	Wt%
Fluoroelastomer	9011-17-0	Trade Secret
Bisphenol AF	1478-61-1	Trade Secret

SECTION 4. FIRST AID MEASURES

INGESTION: Consult a physician immediately.

- EYE CONTACT:** Flush with large amounts of water for 10-15 minutes. Consult a physician if needed.
- SKIN CONTACT:** Wash affected area with soap and water. Remove contaminated clothing and shoes. **DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL.** Immediately flush affected area with cold water and cover with a clean dressing. Have burn treated by a physician.
- INHALATION:** Leave the contaminated area and seek fresh air. If breathing is difficult, contact a physician.

SECTION 5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA:** Alcohol foam, CO₂, or dry chemical
- PROTECTIVE EQUIPMENT:** Use NIOSH/MSHA approved SCBA and bunker gear. Evolution of acidic gases may require complete wash down of protective clothing prior to removal.
- HAZARDOUS COMBUSTION PRODUCTS:** In case of fire or if processing at high temperatures, toxic gases including hydrofluoric acid, perfluoroisobutylene, and carbonyl fluoride may be formed.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Ensure cleanup is done only by trained personnel wearing appropriate personal protective equipment.
- Collect spilled material in a container and seal.

SECTION 7. HANDLING & STORAGE

HANDLING

- Follow safe industrial hygiene practices and wear proper protective equipment.
- Use only in well ventilated areas.
- Wash hands thoroughly after handling.
- Wash clothing after use.
- Avoid contact with skin or eyes.
- Do not breathe vapor or spray.
- Do not store or consume food, drink, or tobacco in areas where they may become contaminated with this material.
- If smoking tobacco becomes contaminated by this material, exposure to toxic gases through inhalation can occur. Therefore, do not smoke in the work areas and wash hands and face after handling in order to avoid transfer of material onto tobacco.

STORAGE

- Keep away from heat, steam, sunlight, sparks, and open flame.
- Store containers tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS & PERSONAL PROTECTIVE EQUIPMENT

- EXPOSURE LIMITS:** No exposure limits available for the product.
Excessive exposure to thermal degradation products could result in delayed pulmonary edema in some cases, and on very high exposure, damage to the liver and kidneys. These substances may include: perfluoroisobutylene (TLV = 0.01 ppm Ceiling), carbonyl fluoride (TLV = 2 ppm TWA, 5 ppm STEL), hydrogen fluoride (TLV = 2 ppm Ceiling, 0.5 ppm TWA).
- RESPIRATORY PROTECTION:** Use respirator suitable for protection. If material is heated, use a positive pressure air supplied respirator or SCBA.
- EYE PROTECTION:** Safety glasses with side shields or goggles.
- PROTECTIVE CLOTHING:** Chemical resistant gloves and protective clothing should be worn when handling this material. When heated, wear gloves to prevent thermal burns.
- VENTILATION:** Use local exhaust ventilation when molding or curing.
- OTHER PROTECTIVE EQUIPMENT:** Eyewash station and safety shower.

SECTION 9. PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE:	White to light yellow sheet
ODOR:	Not Applicable
ODOR THRESHOLD:	Not Applicable
pH:	Not Applicable
MELTING POINT:	Not Applicable
BOILING POINT/RANGE:	Not Applicable
FLASH POINT:	Not Applicable
FLAMMABLE LIMITS:	LEL – Not Available UEL – Not Available
EVAPORATION RATE (Butyl acetate=1):	Not Applicable
VAPOR PRESSURE:	Not Applicable
VAPOR DENSITY:	Not Applicable
SPECIFIC GRAVITY (H₂O=1):	1.81 - 1.87 at 25 °C
APPARENT DENSITY:	Not Applicable
SOLUBILITY (IES):	Insoluble in water Soluble in ketones, esters, ethers, and perfluoroalkanes
PARTITION COEFFICIENT (n-octanol/water):	Not Applicable
AUTO-IGNITION TEMPERATURE:	Not Available
DECOMPOSITION TEMPERATURE:	Not Available
VISCOSITY:	Not Applicable

SECTION 10. STABILITY & REACTIVITY

STABILITY:	Stable under normal temperature and pressure
CONDITIONS TO AVOID:	Excessive heat, sparks, and open flame
INCOMPATIBILITIES:	May react with metals, such as sodium, magnesium, aluminum at elevated temperatures (above 425 °C); may react upon prolonged exposure to fluorine or in oxygen-fluorine mixtures at high temperatures and pressures. Contact with incompatible materials may result in fire or explosion.
HAZARDOUS POLYMERIZATION:	Should not occur
HAZARDOUS DECOMPOSITION:	Decomposition or by-products and toxic by-products including carbon monoxide, carbon dioxide, hydrofluoric acid, perfluoroisobutylene, and carbonyl fluoride may be formed at very high temperatures.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS OF EXPOSURE

Ingestion:	May be harmful if swallowed.
Eye Contact:	May cause mild irritation.
Skin Contact:	May cause skin irritation.
Inhalation:	May cause respiratory irritation.

CHRONIC EFFECTS OF EXPOSURE: No Data Available

ACUTE TOXICITY: No Data Available

SKIN CORROSION/IRRITATION: No Data Available

SERIOUS EYE DAMAGE/IRRITATION: No Data Available

RESPIRATORY OR SKIN SENSITIZATION: No Data Available

GERM CELL MUTAGENICITY: No Data Available

CARCINOGENICITY: None of the components in this material are listed by NTP, OSHA, or IARC.

REPRODUCTIVE TOXICITY: No Data Available

STOT-SINGLE EXPOSURE: No Data Available

STOT-REPEATED EXPOSURE: No Data Available

ASPIRATION HAZARD: Not Applicable

SECTION 12. ECOLOGICAL INFORMATION

BIODEGRADABILITY: Ecotoxicity is expected to be low based on near zero water solubility of the polymer. Material is considered inert and not expected to be biodegradable or toxic.

BIOACCUMULATION: No data

SECTION 13. DISPOSAL CONSIDERATIONS

Comply with Federal, State and Local regulations concerning health and environment when disposing of materials. Regulations may also apply to empty containers, liners, or rinsate. **DO NOT INCINERATE** unless incinerator is capable of scrubbing hydrogen fluoride and other acidic combustion products.

SECTION 14. TRANSPORT INFORMATION

UN CLASSIFICATION: Not applicable

DOT HAZARD DESCRIPTION: Not applicable

CANADIAN TRANSPORTATION OF DANGEROUS GOODS (TDG): Not applicable

SECTION 15. REGULATORY INFORMATION

TSCA: All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

OTHER COUNTRIES: The fluoropolymer of this product is listed on the chemical inventories of the following countries: Canadian DSL, Australia AICS, Korea ECL, Japan ENCS, Philippine PICCS

Other: State and local regulations may have specific requirements for this product or components of this product; consult specific state and local regulatory requirements for additional information.

SECTION 16. OTHER INFORMATION

For additional information, refer to the American Conference of Governmental Industrial Hygienists (ACGIH) documentation of TLV's (Threshold Limit Values) for individual components, Fluoropolymers Safe Handling Guide published by The Society of the Plastics Industry, and the DOT Emergency Response Guidebook.

This product is not designed, manufactured, or intended for medical uses, including implantation to the body or other applications in direct contact with body fluids or tissues. Do not use for non-industrial applications.

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